direct medical costs were considered. [3] The model used a lifetime horizon with a 5% discount. **RESULTS:** Of all therapies, Apixaban is the only one that improved outcomes in number of Strokes (4), MI (3), Bleedings (85) and Systemic Embolism events (1) prevented when compared to Warfarin. Overall costs were US$19007.24, US$24615.16, US$24137.36, US$23510.21, and US$25067.11 for Warfarin, Apixaban, Dabigatran 110 mg, Dabigatran 150 mg and Rivaroxaban respectively. In terms of QALY's, Apixaban earned the highest amount with 5.736 while Warfarin has the lowest reported of 5.566. In the CE incremental analysis, Apixaban was a cost-effective alternative to other anticoagulants. According to Trinidad's Willingness to Pay (3 GPB per capita), Apixaban obtained the highest probability of being cost-effective (70%). **CONCLUSIONS:** Apixaban is a Cost-Effective option for the Trinidad's Private Health System.

PCV85

## COST EFFECTIVENESS OF APIXABAN COMAPRED TO ASPIRIN IN PATIENTS WITH ATRIAL FIBRILLATION

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**OBJECTIVES:** To determine the cost-effectiveness of apixaban compared to aspirin to prevent thromboembolic events in patients with atrial fibrillation who are unsuitable or intolerant of warfarin therapy, from an Australian health care perspective. **METHODS:** By extrapolating data from the Apixaban Versus Acetylsalicylic acid to prevent Stroke in Atrial Fibrillation (AVERROSE) trial, a Markov model with yearly cycles was developed to simulate the costs and effects of apixaban compared to aspirin over 10 years. The model comprised five health states: 'Alive without thromboembolic disease (stroke, myocardial infarction and other systemic embolism) nor major bleeding (MB)'; 'Alive with thromboembolic disease, but without prior MB'; ' Alive without thromboembolic disease, but with prior MB'; 'Alive with thromboembolic disease and prior MB'; and 'Dead'. Costs, from an Australian health care perspective, were estimated from published sources. The main outcome of interest was incremental cost-effectiveness ratio (ICER) per quality adjusted life year (QALY) saved and per year of life saved (YoLS). Costs and benefits were discounted at 5.0% per annum. **RESULTS:** For each patient followed-up over 10 years, the model predicted that compared to aspirin, apixaban would lead to 0.19 YoLS (discounted) and 0.20 QALYs saved (discounted), at a net cost of AUD $5,025 (discounted). This equated to ICERs of AUD $27,090 per YoLS and AUD $25,095 per QALY saved. One way and probabilistic sensitivity analyses indicated the results to be robust. **CONCLUSIONS:** Compared to aspirin, apixaban is likely to be cost-effective in preventing thromboembolic disease among patients with atrial fibrillation who are intolerant to warfarin.

PCV86

## CARDIOVASCULAR SURGERY PATHWAY MICROSIMULATION FRAMEWORK TO STUDY THE HEALTH ECONOMICS OF CLEVIDIPINE

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**OBJECTIVES:** Clevidipine, a short-acting, intravenous dihydropyridine calcium channel blocker, is easily titratable to achieve the desired blood pressure (BP). The ECLIPSE trials compared the safety and efficacy of clevidipine to sodium nitroprusside, nitroglycerin, and nicardipine during the perioperative period in cardiac surgery patients. We sought to gain an initial understanding of economic properties. **METHODS:** A decision-analytic microsimulation framework was defined to follow patients from hospital admission; assigned characteristics reflected the pooled ECLIPSE populations (1,511 coronary artery bypass graft and/or valve surgery patients aged 19-89 years). Exploratory multivariate regression analyses of the ECLIPSE data identified potential clinical and economic effects of clevidipine. Additional inputs came from administrative databases and published sources. Costs were assessed from a US health system perspective. Unit costs for intensive care and normal ward covered room and board costs only. Economic endpoints included cost per death avoided at day 30 and cost per quality-adjusted life year (QALY) gained. A life-long time horizon was adopted for the latter; costs and effects were discounted by 3% per year. **RESULTS:** BP control was significantly associated with time to extubation and 30-day occurrence of bleeding, renal insufficiency, death; associations with other clinical events, length of stay were non-significant. At day 30, clevidipine dominated comparators. Costs ranged from USD14,718 (clevidipine) to USD15,787 (nicardipine). Probability of survival varied slightly between agents; from 96.8% (clevidipine) to 96.4% (sodium nitroprusside). For the life-long time horizon, clevidipine showed an incremental cost-effectiveness of USD10,863 per QALY gained versus sodium nitroprusside. Nitroglycerin and nicardipine were dominated. **CONCLUSIONS:** Our framework provides a flexible basis for assessing economic properties of clevidipine use in cardiac surgery. The effects implemented to-date, driving economic results, come from unplanned, exploratory analyses and require independent, ideally prospective verification. Current numerical results, including cost savings, should therefore be interpreted as indicative of potential but highly tentative.

PCV87

## COST EFFECTIVENESS ANALYSIS OF THE THRESHOLD FOR INITIAL HYPERTENSION TREATMENT- A MARKOV STUDY FOLLOWING THE JNC8 GUIDELINE

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**OBJECTIVES:** Recently, "2014 evidence-based guideline for the management of high blood pressure in adults" was published by the Eighth Joint National Committee (JNC 8), in which the threshold of initiate pharmacologic treatment to lower blood pressure at systolic blood pressure (SBP) was increased from 140 to 150 mmHg. Considering the scarcity of economic evaluation of threshold for initial hypertension treatment, the aim of this study was to evaluate whether the new threshold of initial hypertension treatment is cost-effective compared to the former one from a third party payer perspective. **METHODS:** A state-transitional model was built using published evidence comparing the quality adjusted life years (QALYs) patients 60 years or older gained using different threshold of initial hypertension treatment. The QALYs and occurrence of CVD were used as primary and secondary outcome. The model used a life-time framework adopting a third-party payer's perspective. Incremental cost-effectiveness ratio (ICER) between groups was calculated in U.S. dollars per QALY gained. Both one-way sensitivity analyses and probabilistic sensitivity analysis were conducted to explore the uncertainty of variables. **RESULTS:** The ICER for the base case of the new guideline versus the original one was 30,298 U.S. dollars per QALY gained. Other than age of patients, there is no variable could significantly influence results. There would be a 32% of more effective and less costly using new guideline threshold, and overall 83% chance of being cost-effective compared with the original one. **CONCLUSIONS:** The results indicated that it high likely that the new guideline of threshold for initial hypertension treatment is cost-effective than the original one, which means for patients older than 60 years diagnosed with hypertension, the initial anti-hypertension treatment could be given till the SBP comes to 150 mmHg.

PCV88

## COST-EFFECTIVENESS ANALYSIS OF AMBRISENTAN VERSUS BOSENTAN IN THE TREATMENT OF PATIENTS WITH PULMONARY ARTERIAL HYPERTENSION FUNCTIONAL CLASS III

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**OBJECTIVES:** Assess the cost-effectiveness of ambrisentan versus bosentan for treatment of pulmonary arterial hypertension in patients with OMS functional class III for knowing which treatment has superior efficiency. **METHODS:** We performed a cost-effectiveness analysis using a Markov model. It has involved the treatment of a patient older than 50 years, which has continued until he had completed 80 years and compared the results obtained in a patient treated with bosentan and another patient treated with ambrisentan. The transition probabilities between different health states considered in the model were taken from the literature review and estimated for each cycle of the model. To evaluate the drug price effect and variations of effectiveness on results, we developed a sensitivity analysis Montecarlo type. **RESULTS:** In the base case, the ambrisentan was more cost-effective than bosentan, with an approximate cost of $ 53.146,41 (USD) for each year of life free of disease versus $ 61.040,93 (USD) for year of life free of disease for bosentan. The incremental cost-effectiveness ratio by patient was $ 143.505,23 (USD). The variable that more affected the final result was the drug price. Sensitivity analysis showed that the model is robust, and to changes in price and efficacy of the drug the results are stable, and ambrisentan remains cost-effective. ConclusionSWith the data obtained in the study the use of ambrisentan in the treatment of pulmonary arterial hypertension in Colombia is presented as an efficient alternative despite currently the bosentan is reimbursed

PCV89

## COST-EFFECTIVENESS OF APIXABAN AGAINST CURRENT STANDARD OF CARE FOR STROKE PREVENTION IN ATRIAL FIBRILLATION IN CHILE

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**OBJECTIVES:** Acenocoumarol, a vitamin K antagonist (VKA) is the standard of care for stroke prevention in patients with atrial fibrillation (AF) in Chile. While ARISTOTLE enrolled warfarin as a comparator, evidence is deemed applicable to patients treated with acenocoumarol (called as VKA hereafter) in Latin America and Southern Europe. Nevertheless, Apixaban is the only novel oral anticoagulant that has demonstrated significant benefit in terms of efficacy and safety against warfarin in ARISTOTLE. The aim of this study is to estimate the cost-effectiveness (CE) of Apixaban versus VKA in Non Valvular Atrial Fibrillation (NVAF) from the public payer perspective in Chile. **METHODS:** A Markov model was adapted to evaluate the clinical and economic impact of Apixaban compared to VKA in VKA-suitable population over lifetime. Effectiveness data were derived from the original clinical trials. Clinical events captured include ischemic and hemorrhagic stroke (further categorized as mild, moderate or severe), intracranial hemorrhage (ICH), other major bleed, clinically relevant non-major bleed, myocardial infarction, cardiovascular hospitalization and deaths. Benefit assessment was conducted using a patient preference study using EQ-5D. The model was imputed the parameters of local costs and utilities, and Chilean epidemiology data. Associated direct medical costs were taken from local databases; discounted at 3.5% per year, and expressed in 2013 CLP$ as of July. **RESULTS:** The incremental cost of treating a patient with Apixaban vs VKA was CLP$ 1,964,424, providing an incremental effectiveness of 0.537 QALY. Therefore, the cost per QALY gained is CLP$ 3,967,325. Tornado analysis shows that results are most sensitive to stroke risk for Apixaban, followed by ICH risk for VKA **CONCLUSIONS:** Using accepted threshold for cost effectiveness of CLP$ 9,552,500 for Chilean market (1 GDP/capita), Apixaban was deemed as a very cost effective alternative to VKA for stroke prevention in non-valvular AF patients in Chile.

PCV90

## COST-EFFECTIVENESS OF RIVAROXABAN FOR THE TREATMENT OF PULMONARY EMBOLISM IN CANADA

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**OBJECTIVES:** Current standard treatment of pulmonary embolism (PE) in Canada involves a low molecular weight heparin (LMWH) and vitamin K antagonist (VKA). However, such treatment has limitations. Rivaroxaban, an oral factor Xa inhibitor, was recently approved approved by Health Canada for the treatment of venous thromboembolic events (VTE - deep vein thrombosis [DVT], pulmonary embolism [PE]) and prevention of recurrent DVT and PE. EINSTEIN-PE compared rivaroxaban to enoxaparin/VKA for 3, 6 or 12 months of treatment post-PE. Rivaroxaban was